Application No. 10/764,806 12/13/2004 Second Amendment

Amendments to the Claims:

1. (original) A method for coating a carbon velvet material attached to a cathode to make a field emission cold cathode, comprising:

forming a solution of a low work function cesiated salt and de-ionized water; spraying the carbon velvet material with the cesiated salt solution to form a coated carbon velvet material;

baking the coated carbon velvet material at a temperature of at least 100 °C for approximately an hour in a vacuum oven evacuated to less than 1 torr.; and venting the vacuum oven to an atmospheric pressure using dry nitrogen.

- 2. (original) A coating method as recited in Claim 1, wherein the spraying step includes pressurizing a spraying means with dry nitrogen.
- 3. (original) A coating method as recited in Claim 1, wherein the cesiated salt is selected from a group consisting of cesium tellurate and cesium bromide.
- 4. (previously amended) A coating method as recited in Claim 1, wherein the steps of forming, spraying, baking, and venting are repeated until a film of cesiated salt having a desired thickness is formed on the carbon velvet material.

5-7. (canceled)

8. (original) A method of making a field emission cold cathode, comprising:

depositing a vaporized cesiated salt solution onto fibers of a carbon velvet material;

forming cesiated salt crystals on the fibers; and bonding the carbon velvet material to a cathode.

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9-12. (canceled)

13. (previously amended) A method of making a field emission cold cathode comprising:

attaching a carbon velvet material having fibers to a cathode; dipping the fibers in a molten cesiated salt solution; and cooling the solution.

- 14. (canceled)
- 15. (previously amended) A method of making a field emission cold cathode comprising:

attaching a carbon velvet material having fibers to a cathode; dipping the fibers in a molten cesiated salt solution; and removing the fibers from the solution.

- 16. (canceled)
- 17. (previously amended) A method as recited in Claim 15 wherein the steps of dipping and removing are repeated until a film of cesiated salt having a desired thickness is formed on a plurality of the fibers.
 - 18. (canceled)